

Thesis topics for mechanical engineering students

Supervisor / Témavezető	Topic of BSc thesis	Intership topic connected to the thesis work	Student	"Outer" (SMI) consultant
Dr. habil. Andó Mátyás	Incremental sheet forming with CNC milling machine (attendance is necessary in University)		Rawad Adel Zeineddine	Dr. Safranyik Ferenc
Dr. Bak Árpád	Project plan for development of the LEAN philosophy in manufacturing!		Siraphop Simon Ar-thongete	Lajber Kristóf
Dr. Borbély Tibor				
Dr. habil. Fekete Gusztáv				
Dr. Jánosi Endre				
Prof. Dr. Kollár László	Wind-induced vibration of a conductor with damper	Vibration damping of suspended cables	Aruzhan Koptleu	Dr. Luis Rubio Rodriguez
Prof. Dr. Kollár László	Forces acting on interphase spacers (IPS) during conductor vibration	Buckling analysis of interphase spacers	Abdelrahman Mohamed Ali Moawad	Dr. Safranyik Ferenc
Dr. Nemes József				
Pál Gyula				
Dr. Safranyik Ferenc	Mechanical characterization of soils	Using Smoothed Particle Hydrodynamic (SPH) method to solve practical problems concerning to large deformation (understanding theoretical background of SPH method, advanced application of Ansys Autodyn and Workbench to SPH model creation, SPH tutorial creations for beginner users)	Anood Ahmed Raafat	Prof. Dr. Kollár László
Prof. Dr. Sidor Jurij	Investigation of recrystallization phenomena in Al alloys	Theoretical aspect of investigation of microstructure evolution in metallic systems by employing microscopy and indentation techniques.	Samar Mani	Purnima Chakravarty
Dr. Sudhanraj Jeganmohan	Strength and failure analysis of riveted joints for brake lining in trucks (Knowledge in Ansys is recommended)	Design and development of riveted joints (as a longitudinal butt joint) for brake linings in trucks (Knowledge in any Modelling software is recommended)		
Dr. Luis Rubio	Design optimization of piston pumps. Academic approach. Novel control schemes for hydraulic accumulators. Supervisory control for hybrid hydraulic vehicles.	Design optimization of piston pumps. Industrial approach. Analysis and modeling of hydraulic accumulator. Analysis and modeling of hybrid hydraulic vehicle.		
Dr. Tej Singh	Optimization on physico-mechanical properties of polymer composites using multiple-criteria decision-making.	Study of some physico-mechanical properties of polymer composites.		
Lajber Kristóf	Study of strain and deformation measurement using the arduino microcontroller and strain gauges devices		Ahmed Guermazi	Dr. Safranyik Ferenc